UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,627	12/17/1999	MING-LING LO	YO999-429	1398

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EXAMINER
NGUYEN, MAIKHANH

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/466,627</td><td>Applicant(s)
LO ET AL.</td><td></td></tr>
<tr><td>Examiner
Maikhanh Nguyen</td><td>Art Unit
2176</td><td></td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 April 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,7-12,16-46,48,49,51-61,63,64 and 66-96</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,7-12,16-46,48,49,51-61,63,64 and 66-96</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

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DETAILED ACTION

1.   This action is responsive to communications: Amendment filed 04/04/2006 to the

original application filed 12/17/1999.

2.   Claims 1-3, 7-12, 16-46, 48-49, 51-61, 63-64, and 66-96 are currently pending in this

application. Claims 4-6, 13-15, 47, 50, 62, and 65 have been canceled. Claims 1, 46 and

61 are independent claims.

Declaration Under 37 CFR 1.131

3.   The declaration under 37 CFR 1.131 filed 17 June 2004 has been considered, but it is

insufficient to overcome the rejection of claims 1-3, 7-12, 16-46, 48-49, 51-61, 63-64,

and 66-96, under 35 U.S.C. 102(e) as being anticipated by **Chang et al.** (U.S. 6,584,459,

filed 06/1999). The declaration fails to comply with proper execution requirements,

specifically the criteria involving a non-signing inventor. Simply making a statement as

to the unavailability of a non-signing inventor does not satisfy the required "showing"

regarding the absence of the inventor's signature. The necessary showing should submit

the information in the petition form including proof of the pertinent facts, the fee set forth

in § 1.17(g), and the last known address of the nonsigning inventor. As a courtesy, 37

CFR 1.47 is reproduced below:

a) If a joint inventor refuses to join in an application for patent or cannot be found or reached after diligent effort, the application may be made by the other inventor on behalf of himself or herself and the nonsigning inventor. The oath or declaration in such an application must be accompanied by a petition including proof of the pertinent facts, the fee set forth in § 1.17(g), and the last known address of the nonsigning inventor. The nonsigning inventor may subsequently join in the application by filing an oath or declaration complying with § 1.63.

(b) Whenever all of the inventors refuse to execute an application for patent, or cannot be found or reached after diligent effort, a person to whom an inventor has assigned or agreed in writing to assign the invention, or who otherwise shows sufficient proprietary interest in the matter justifying such action, may make application for patent on behalf of and as agent for all the inventors. The oath or declaration in such an application must be accompanied by a petition including proof of the pertinent facts, a showing that such action is necessary to preserve the rights of the parties or to prevent irreparable damage, the fee set forth in § 1.17(g), and the last known address of all of the inventors. An inventor may subsequently join in the application by filing an oath or declaration complying with § 1.63.

c) The Office will send notice of the filing of the application to all inventors who have not joined in the application at the address(es) provided in the petition under this section, and publish notice of the filing of the application in the Official Gazette. The Office may dispense with this notice provision in a continuation or divisional application, if notice regarding the filing of the prior application was given to the nonsigning inventor(s).

Because one of the joint inventors, Ming-ling Lo, signature was not provided to execute

an application for patent, the prosecution is improper. Accordingly, the declaration is

insufficient to overcome the rejection of claims 1-3, 7-12, 16-46, 48-49, 51-61, 63-64,

and 66-96 under 35 U.S.C. 102(e) as being anticipated by the Chang reference. The

rejection is therefore maintained.

Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7-12, 14, 16-46, 48-49, 51-61, 63-64, and 66-96 are rejected under 35 U.S.C.

102(e) as being anticipated by **Chang et al.** (U.S. 6,584,459, filed 06/1999, priority

10/1998).

As to claim 1:

Chang teaches establishing a mapping from lists and scalars corresponding to at least one

data source into XML elements and attributes *(e.g., associating these data types with*

XML elements and attributes; col.19, lines 47-48 & see figs.1 and 3 show association

between DB2 with XML document; see also, the mapping discussion beginning at col.14,

line 34).

As to claim 2:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line*

59) and a data processing device *(one or more processors; col.6, lines 21-22).*

As to claim 3:

Chang teaches at least one processor *(e.g., one or more processors; col.6, lines 21-22)*

configured to use the at least one medium *(computer-readable medium; col.6, line 59)* to

produce an XML document based on the mapping *(see the mapping discussion beginning*

at col.14, line 34).

As to claim 7:

Chang teaches the data source is a relational database *(e.g., relational database; col.3,*

lines 35- 60 and fig.1).

As to claim 8:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 9:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale.

As claim 10:

Chang teaches expressing the mapping in constructs of a mapping language *(see the mapping discussion beginning at col.14, line 34 & figs. 1 and 3).*

As to claim 11:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 12:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale.

As to claim 90:

Chang teaches inserting the constructs into a DTD to create an annotated DTD *(e.g., DTDid is an integer value identifying a document type definition element (DTD) of an*

XML document...This redefined constructor can be used to insert and update data together with other UDFs provided by the XML extender) [see the discussion, beginning at col.9, line 11].

As to claim 91:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 92:

Chang teaches the at least one medium *(e.g., computer-readable medium; col.6, line 59),* and at least one processor *(e.g., one or more processors; col.6, lines 21-22)* configured to use the at least one medium to produce an XML document based on the mapping; and perform the inserting operation *(col.21, line 3-12).*

As to claim 16:

Chang teaches the constructs comprise at least one of a value specification and a binding specifications *(e.g., see figs. 11 &12 and the discussion, beginning at col.16, line 56).*

As to claim 17:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 18:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale.

As to claim 19:

Chang teaches at least one parameter *(e.g., parameters; col.20, line 63)*; the at least one of the constructs is adapted so that a value of the at least one of the parameters is determinable at a time of generation of at least one respective XML element associated with the at least one of the constructs *(col.22, lines 18-57 and col.23, lines 5-51)*.

As to claim 20:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(one or more processors; col.6, lines 21-22)*.

As to claim 21:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale. Additionally, Chang teaches pass the value to the parameter *(col.22, lines 18-57)*.

As to claim 22:

Chang teaches associating values and or formulas with the DTD *(e.g., see the DTD discussion beginning at col.9, line 3)*.

As to claim 23:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 24:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale. Additionally, Chang teaches perform the associating operation *(see figs.1, 3 and the data linking discussion beginning at col.7, line 9).*

As to claim 25:

Chang teaches associating one or more lists of data objects or formulas producing data objects with each DTD construct having a repetition symbol at the end *(see the document type definition discussion beginning at col.5, line 50).*

As to claim 26:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 27:

Chang teaches at least one medium *(e.g., computer-readable medium; col.6, line 59)* according to claim 26; and at least one processor *(e.g., one or more processors; col.6,*

lines 21-22) configured to use the at least one medium to produce an XML document;

and perform the associating operation *(e.g., perform operations on the stored XML*

documents; col.8, lines 21-42).

As to claim 28:

Chang teaches associating one or more lists of data objects or formulas producing data

objects with each DTD construct which is not a #PCDATA, a choice list, or an attribute

list, and does not end with a repetition symbol *(col.5, lines 17-48).*

As to claim 29:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line*

59) and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 30:

It includes the same limitations as in claim 24 above, and is similarly rejected under the

same rationale.

As to claim 31:

Chang teaches associating a value or formula producing a value with each PCDATA,

choice list, or attribute definition *(col.24, lines 32-66).*

As to claim 32:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22)*.

As to claim 33:

It includes the same limitations as in claim 24 above, and is similarly rejected under the same rationale.

As to claim 34:

Chang teaches associating includes, not necessarily in the following order: first associating one or more lists of data objects, or formulas producing data objects with a DTD construct *(e.g., see the document type definition discussion beginning at col.5, line 50 and col. 9, line 11)*; second associating at least one of the lists or formulas with at least one variable name; and using the variable name as a parameter in at least one other formula *(col.24, lines 38-66)*.

As to claim 35:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22)*.

As to claim 36:

It includes the same limitations as in claim 24 above, and is similarly rejected under the same rationale.

As to claim 37:

Chang teaches associating at least one respective environment with a respective XML element to be generated *(e.g., an XML table is created; col.8, lines 31-32).*

As to claim 38:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 39:

It includes the same limitations as in claim 24, and is similarly rejected under the same rationale.

As to claim 40:

Chang teaches information from a parent XML element of the respective XML element; and information from a binding specification of a DTD construct associated with the respective XML element *(col.15, line 50-col.17, line 64).*

As to claim 41:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 42:

It includes the same limitations as in claim 24 above, and is similarly rejected under the

same rationale.

As to claim 43:

Chang teaches the mapping includes at least one respective specification corresponding

to at least one respective XML element the specification comprises at least one parameter

for receiving a value upon generation of an XML document; and the method further

comprises, upon generation of an XML document, sending the at least one parameter a

value according to at least one variable/value pair *(e.g., attribute name/value pairs)* in the

at least one respective environment *(col.15, line 25-col.16, line 24).*

As to claim 44:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6,*

line 59) and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 45:

It includes the same limitations as in claim 24 above, and is similarly rejected under the

same rationale. Additionally, Chang teaches sending operations *(col.25, lines 1- 40).*

As to claim 76:

Chang teaches multiple heterogeneous data sources *(e.g., see FileSystem 500 and DB2 300 in fig.3)* and method further comprises using a pre-established DTD corresponding to the multiple heterogeneous data sources; and based on the DTD and the multiple heterogeneous data sources, adding annotations to the DTD to create an annotated DTD *(col.12, lines 34-60)*, such that an SML document generated from the DTD is guaranteed to conform to the DTD *(e.g., XML documents conform to a single DTD; col.15, lines 50-67)*.

As to claim 77:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line 59)* and a data processing device *(e.g., one or more processors; col.6, lines 21-22)*.

As to claim 78:

Chang teaches at least one medium *(e.g., computer-readable medium; col.6, line 59)* and a processor *(e.g., one or more processors; col.6, lines 21-22)*.

As to claim 81:

Chang teaches the mapping return at least one list of scalar values, and at least one SQL call result *(col.23, line 5-col.24, line 28 and col.25, lines 4-40)*.

As to claim 84:

Chang teaches the mapping is responsive to a user mapping specification *(col.16, lines 1-*

22).

As to claim 87:

Chang teaches at least two data sources, and the data sources are of different types *(e.g.,*

see FileSystem 500 and DB2 300 in fig.3).

As to claim 88:

Chang teaches at least one medium readable *(e.g., computer-readable medium; col.6, line*

59) and a data processing device *(e.g., one or more processors; col.6, lines 21-22).*

As to claim 89:

Chang teaches the at least one medium *(e.g., computer-readable medium; col.6, line 59)*;

and at least one processor *(e.g., one or more processors; col.6, lines 21-22)* configured to

use the at least one medium to produce an XML document based on the mapping.

As to claim 46:

It is directed to a readable medium for implementing the method of claim 1 above, and

is similarly rejected under the same rationale.

As to claims 48, 49, 58, 59, 60, & 79:

They include the same limitations as in claims 7, 10, 37, 40, 43, & 76 respectively, and

are similarly rejected under the same rationale.

As to claim 82:

Chang teaches the mapping return at least one list of scalar values, and at least one SQL

call result *(col.23, line 5-col.24, line 28 and col.25, lines 4-40)*.

As to claim 85:

Chang teaches the mapping is responsive to a user mapping specification *(col.16, lines 1-22)*.

As to claim 93:

It includes the same limitations as in claim 87 above, and is similarly rejected under the

same rationale.

As to claim 94:

Refer to discussion of claim 76 above.

As to claims 51, 52, 53, 54, 55, 56 & 57:

They include the same limitations as in claims 16, 19, 22, 25, 28, 31 & 34 respectively,

and are similarly rejected under the same rationale.

As to claim 96:

Refer to discussion of claim 76 above.

As to claims 68, 69, 70, 71, 72:

They include the same limitations as in claims 22, 25, 28, 31 & 34 respectively, and are similarly rejected under the same rationale.

As to claim 61:

It is directed to a processing device for performing the method of claim 1 above, and is similarly rejected under the same rationale. Additionally, Chang teaches receiving data from at least one data source *(e.g., FileSystem, DB2 in fig.3)* and at least one processor *(e.g., one or more processors; col.6, lines 21-22).*

As to claims 63, 64, 66, 67, 73-75, 80, 83, 86 & 95:

They include the same limitations as in claims 7, 10, 16, 19, 58-60, 76, 82, 85 & 87 respectively, and are similarly rejected under the same rationale.

Response to Arguments

5.   Applicants' arguments filed 04/04/2006 have been fully considered but they are not persuasive.

Applicant argues that the Examiner has not adequately demonstrated that the Chang document is prior art in view of the 131 declarations [Remarks, page 22].

In response, the declaration under 37 CFR 1.131 filed 17 June 2004 has been considered, but it is insufficient to overcome the rejection.

Applicant argues that if the Examiner's rejection is based on the filing date of the provisional application for Chang, then Applicants respectfully submit that the Examiner must make that provisional of record and demonstrate how the provisional allegedly anticipates the invention [Remarks, page 22].

In response, Chang is a valid reference for 102(e) rejection as set forth above since Chang's filing date is June 2, 1999 (the instant application has a provisional application filed October 19, 1999).

Applicant argues that *Chang reference fails to suggest an annotated DTD and there is no teaching of inserting constructs into a DTD* [Remarks, page 23].

In response, Chang teaches inserting the constructs into a DTD to create an annotated DTD *(e.g., DTDid is an integer value identifying a document type definition element (DTD) of an XML document...This redefined constructor can be used to insert and*

update data together with other UDFs provided by the XML extender) [see the

discussion, beginning at col.9, line 11].

Applicant argues that *Chang reference fails to teach a single DTD for multiple*

heterogenerous data sources [Remarks, page 24].

In response, Chang's teaching "the XML documents conforms to a single DTD" (col.15,

lines 50-67) reads-on "*a single DTD for multiple heterogenerous data sources.* " It is

noted that XML documents are data sources so that user can query to retrieve XML

documents.

Applicant argues that *Chang reference fails to teach the constructs comprise at least of a*

value specification and binding specification [Remarks, page 25].

In response, Chang teaches construct comprise at least a value specification (*e.g.,*

variable) and binding specification *(e.g., d1,21,28) [see figs. 11 &12 and the discussion,*

beginning at col.16, line 56].

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Srivastava et al.   U.S. Pat. No. 6,549,922   Issued: Apr. 15, 2003

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the mailing date of this final action.

Contact information

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Maikhanh Nguyen whose telephone number is (571) 272-

4093. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30

pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Heather Herndon can be reached at (571) 272-4136.

The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MN

WILLIAM BASHORE
PRIMARY EXAMINER